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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,938	09/05/2003	Yoshihiro Hara	15162/06150	7008
24367	7590	07/09/2004	EXAMINER	
SIDLEY AUSTIN BROWN & WOOD LLP			PERKEY, WILLIAM B	
717 NORTH HARWOOD			ART UNIT	
SUITE 3400			PAPER NUMBER	
DALLAS, TX 75201			2851	

DATE MAILED: 07/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/655,938

Applicant(s)

HARA, YOSHIHIRO

Examiner

William B. Perkey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20031208</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the image sensor and the driver driving the image sensor of claim 14; and the image sensor and the shake correcting section including an image processor for processing the image data of the image sensor of claim 15 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Claim Objections*

2. Claims 10 and 11 are objected to because of the following informalities: there is no proper antecedent basis in the claims for the horizontal and vertical direction shake detection sensors of claim 10. Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

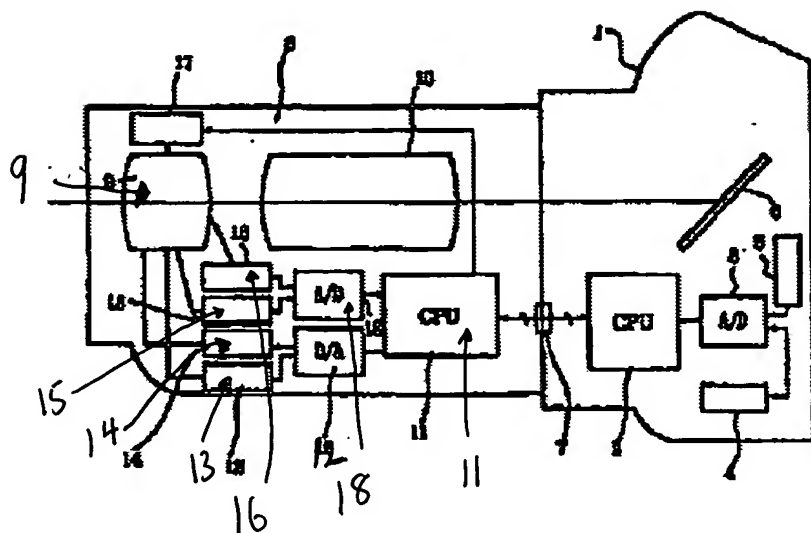
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 6, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Takayuki (publication number 2001-290183, cited by applicants).

Takayuki discloses a first shake detecting section by elements 15, 18 and 11 in the drawing below reproduced from Takayuki; a second shake detecting section by elements 16, 18 and 11; and a shake correcting section as elements 11, 12, 13, 14 and 9. Takayuki discloses that the sampling period or precision in the pitch direction is double that in the yaw direction. Thus, Takayuki fully meets claims 1-4, 7. The sampling period of Takayuki can be reasonably referred to as a driving frequency of the shake detecting section. Thus, claims 6 and 9 are fully met by Takayuki. Below is the drawing from the reference Takayuki.



5. Claims 1-5, 7, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Shiomi (U.S. Patent No. 5,619,030).

Shiomi discloses a first shake detecting section that includes the x direction or yaw direction using the gyro type angular velocity sensor 2 disclosed in column 3 lines 20-45; a second shake detecting section that includes the two dimensional area sensor under V drive detecting shake in the y direction or pitch direction. The first shake detecting section including the gyro type angular velocity sensor 2 shown in Fig. 1 of Shiomi and the second shake detecting section that includes the two dimensional area sensor 6, have different image blur detection frequency characteristics. Thus, their detection characteristics are different. Thus, claims 1-3 are fully met by Shiomi. As, disclosed by Shiomi, the detection precision of the second shake detecting section (that uses the two dimensional area sensor) is higher than that of the angular velocity sensor for at least some frequencies of the image blur. Thus, the limitations of claim 4 are fully met by Shiomi. The angular velocity sensor of Shiomi inherently varies its performance

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with temperature in a manner that the two dimensional area sensor does not. The limitations of claim 5 are fully met by Shiomi.

6. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiomi (U.S. Patent No. 5,619,030) in view of Sato (U.S. Patent No. 5,861,915).

Shiomi shows the claimed invention, as explained above, except for a temperature sensor and an output signal correcting section. Sato et al. teaches that a shake compensation device using angular velocity sensors should be provide with a temperature sensor 41 and an output signal correcting section 5 to correct the outputs from the angular velocity sensor. Sato et al. also discloses the use of look up tables for the temperature correction. It would have been obvious to one of ordinary skill in the art at the time of applicants invention to provide the device of Shiomi with a temperature sensor and an output signal correcting section using look up tables in order to obtain the desirable feature of obtaining better performance of the shake compensation. Thus claims 10-13 are obvious from the prior art considered as a whole.

7. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiomi (U.S. Patent No. 5,619,030) in view of Kubota (U.S. Patent No. 5,376,993).

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Shiomi shows the claimed invention as explained above except for an image sensor and a processor for it. Kubota et al. discloses a CCD type video camera having shake correction in the pitch and yaw directions. It would have been obvious to one of ordinary skill in the art to apply the invention of Shiomi to other types of cameras (including video cameras) other than just film type cameras in order to obtain the desirable feature of better shake correction in video cameras as well as film type cameras.

### Telephone Numbers

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William B. Perkey whose telephone number is (571) 272-2126. The examiner can normally be reached on Monday-Thursday 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William B. Perkey  
Primary Examiner  
Art Unit 2851

WBP:wbp